PatentOrder MT Page 1 of 6

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# (57) Abstract

**Objects of the Invention**A double figure channel selection and a triple figure channel selection are automatically switched about channel selection circuits, such as a television receiver, in the case of the direct channel selection by a ten key.

**Elements of the Invention**By composition which consists of the 100th place judgment part 2, and the judgment part 2 and the channel selection judgment part 4 as for which the 3 or 100th place of a ten key input performs channel selection operation using information on the ten key input 3 which judge existence of a receiving station of 100 or more channels by the auto programing operation part 1 and the auto programing operation part 1. Automatically switching in the case of a channel selection becomes possible, and a user's improvement in operativity is obtained.

#### Claim(s)

**Claim 1**An automatic 100 place discrimination circuit comprising:

An auto programing operation part which registers a broadcast channel.

A 100 place judgment part which judges that there is a receiving station of 100 or more channels from information on said auto programing operation part.

A ten key input for performing a direct channel selection.

Information and said channel selection judgment part which tunes in by incorporating a result of a judgment part the 100th place of said ten key input.

# **Detailed Description of the Invention 0001**

Industrial Application This invention relates to the channel selection circuit used for a

PatentOrder MT Page 2 of 6

television receiver etc.

#### 0002

**Description of the Prior Art**In recent years, pursuit of the convenience of the function in an audio visual device has some which enable reception of 100 or more channels splendidly. **0003**Hereafter, the 100th place of the automatic which judges whether there is any receiving station of 100 or more channels explains an example of a discrimination circuit, referring to drawings.

**0004**Drawing 2 shows the block lineblock diagram of the conventional channel selection circuit. Here explains the direct channel selection by a ten key input. If an input enters twice from a ten key input, the channel selection (henceforth a double figure channel selection) to the channels 1-19 will be carried out after fixed time lapse. If 1 enters and follows the 1st time from a ten key input and an input enters in the 2nd time and the 3rd fixed time, it will become 100 or more channel selections (henceforth a triple figure channel selection).

**0005**It is a channel selection judgment part to which 5 performs a ten key input and 6 performs channel selection operation by the ten key input 5 in drawing 2.

**0006**About the channel selection circuit constituted as mentioned above, the operation is explained below. First, if an input enters from the ten key input 5, the channel selection judgment part 6 will judge it as the input of the 100th place, when the input from the ten key input 5 is 1, and will judge it as the input of the 10th place at the times other than one. Based on the judgment, the channel selection judgment part 6 performs channel selection operation from the input from the 2nd time and the 3rd ten key input 5.

#### 0007

**Problem(s) to be Solved by the Invention**However, with the above composition, it had a problem for which the user who three alter operation is needed only when the 1st input is 1, and accepts it channel 10-19, uses it, and does not use 100 or more channels is made to sense inconvenience.

**0008**It is a thing which provides the automatic 100 grade discrimination circuit which made it possible to switch automatically whether this invention is considered as whether the existence of the receiving station of 100 or more channels is distinguished, and the input of 1 is considered as the input of the 100th place when a ten key input is 1, and the input of the 10th place in view of an aforementioned problem.

#### 0009

**Means for Solving the Problem**In order to solve an aforementioned problem, in a discrimination circuit, the 100th place of an automatic of this invention comprises the following: An auto programing operation part which registers ADD ch.

A 100 place judgment part which judges existence of a receiving station of 100 or more channels from information on said auto programing operation part.

That a ten key input entered and said channel selection judgment part which tunes in by incorporating information on a judgment part the 100th place.

#### 0010

**Function**A channel selection judgment part judges that the judgment part entered the existence of the receiving station of 100 or more channels by the above mentioned composition in the 100th place of of the decision result and ten key input, judging from the auto programing operation part, and this invention performs channel selection operation of double figures or triple figures.

#### 0011

**Example** The example of this invention is described below, referring to drawings.

**0012**Drawing 1 shows the block lineblock diagram of the automatic 100 grade discrimination circuit in one example of this invention. It is a channel selection judgment part 1 judges an auto programing operation part and 2 judges the existence of the channel of his 100 generation to be by the auto programing operation part 1 and to which a judgment part and 3 perform a ten key input, and 4 performs channel selection operation the 100th place the 100th place using the result of the judgment part 2, and the information on the ten key input 3.

**0013**The 100th place of the automatic constituted as mentioned above explains the operation below about a discrimination circuit.

**0014**First, operation of the auto programing operation part 1 will register only the channel which has broadcast one by one as ADD ch. The judgment part 2 judges the existence of the receiving station of 100 or more channels by the operation result of the auto programing operation part 1 the 100th place.

PatentOrder MT Page 3 of 6

**0015**Next, if an input enters from the ten key input 3, the channel selection judgment part 4 will switch a double figure channel selection and a triple figure channel selection based on the result of the judgment part 2 the 100th place, when input is 1.

**0016**When the result of the judgment part 2 judges the 100th place to be those of 100 or more channels with a receiving station, The channel selection judgment part 4 considers the input from the ten key input 3 as the input of the 100th place, if an input enters from the ten key input 3 again, it will be considered as the input of the 10th place, and will continue, and if an input enters from the ten key input 3, it will perform channel selection operation as an input of the 1st place.

**0017**In the above operations, channel selection operation of the receiving station of 100 or more channels is made possible.

**0018**When tuning in the channels 10-19 and there is no input from the ten key input 3 again within the after-input fixed time of the 10th place, the channel selection judgment part 4 considers the input of the 100th place as the input of the 10th place, and performs double figure channel selection operation for the input of the 10th place as an input of the 1st place. **0019**When it is judged that the result of the judgment part 2 has no receiving station of 100 or more channels the 100th place, the channel selection judgment part 4 considers the input from the ten key input 3 as the input of the 10th place, and if an input enters from the ten key input 3 again, it will perform double figure channel selection operation as an input of the 1st place. **0020**In this example, although the existence of the receiving station of 100 or more channels is judged, it does not restrict to this, and the existence of the receiving station of 200 or more channels is judged, for example, and the input change of the 100th place and the 10th place is performed in the ten key input of 1 and 2.

**0021**The ten key input of 1 turns into an input of the 100th place, when it does not restrict to this and the input of 1 continues, for example beyond in fixed time, although it becomes an input of the 100th place, and when there is a receiving station of 100 or more channels, when the input of 1 is less than fixed time in this example, by it, it turns into an input of the 10th place.

**0022**According to this example, the function to distinguish automatically the existence of the receiving station of 100 or more channels which is not in the former is realizable as mentioned above by newly providing a judgment part in the composition of the conventional channel selection circuit the 100th place with an auto programing operation part.

### 0023

**Effect of the Invention**The auto programing operation part which registers ADD ch by this invention as mentioned above, The 100th place of the information and said channel selection judgment part which tunes in by incorporating the result of a judgment part the 100th place of the judgment part and the ten key input for performing a direct channel selection which judge the existence of the receiving station of 100 or more channels from the information on said auto programing operation part, and said ten key input is provided.

Therefore, in the case of the direct channel selection by a ten key, automatic distinction of the existence of the receiving station of 100 or more channels is enabled, and the practical use effect has a so-called size.

**Industrial Application**This invention relates to the channel selection circuit used for a television receiver etc.

**Description of the Prior Art**In recent years, pursuit of the convenience of the function in an audio visual device has some which enable reception of 100 or more channels splendidly. **0003**Hereafter, the 100th place of the automatic which judges whether there is any receiving station of 100 or more channels explains an example of a discrimination circuit, referring to drawings.

**0004**Drawing 2 shows the block lineblock diagram of the conventional channel selection circuit. Here explains the direct channel selection by a ten key input. If an input enters twice from a ten key input, the channel selection (henceforth a double figure channel selection) to the channels 1-19 will be carried out after fixed time lapse. If 1 enters and follows the 1st time from a ten

PatentOrder MT Page 4 of 6

key input and an input enters in the 2nd time and the 3rd fixed time, it will become 100 or more channel selections (henceforth a triple figure channel selection).

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**0006**About the channel selection circuit constituted as mentioned above, the operation is explained below. First, if an input enters from the ten key input 5, the channel selection judgment part 6 will judge it as the input of the 100th place, when the input from the ten key input 5 is 1, and will judge it as the input of the 10th place at the times other than one. Based on the judgment, the channel selection judgment part 6 performs channel selection operation from the input from the 2nd time and the 3rd ten key input 5.

**Effect of the Invention**The auto programing operation part which registers ADD ch by this invention as mentioned above, The 100th place of the information and said channel selection judgment part which tunes in by incorporating the result of a judgment part the 100th place of the judgment part and the ten key input for performing a direct channel selection which judge the existence of the receiving station of 100 or more channels from the information on said auto programing operation part, and said ten key input is provided.

Therefore, in the case of the direct channel selection by a ten key, automatic distinction of the existence of the receiving station of 100 or more channels is enabled, and the practical use effect has a so-called size.

**Function**A channel selection judgment part judges that the judgment part entered the existence of the receiving station of 100 or more channels by the above mentioned composition in the 100th place of of the decision result and ten key input, judging from the auto programing operation part, and this invention performs channel selection operation of double figures or triple figures.

**Example**The example of this invention is described below, referring to drawings.

**0012**Drawing 1 shows the block lineblock diagram of the automatic 100 grade discrimination circuit in one example of this invention. It is a channel selection judgment part 1 judges an auto programing operation part and 2 judges the existence of the channel of his 100 generation to be by the auto programing operation part 1 and to which a judgment part and 3 perform a ten key input, and 4 performs channel selection operation the 100th place the 100th place using the result of the judgment part 2, and the information on the ten key input 3.

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**0017**In the above operations, channel selection operation of the receiving station of 100 or more channels is made possible.

**0018**When tuning in the channels 10-19 and there is no input from the ten key input 3 again within the after-input fixed time of the 10th place, the channel selection judgment part 4

PatentOrder MT Page 5 of 6

considers the input of the 100th place as the input of the 10th place, and performs double figure channel selection operation for the input of the 10th place as an input of the 1st place. 0019When it is judged that the result of the judgment part 2 has no receiving station of 100 or more channels the 100th place, the channel selection judgment part 4 considers the input from the ten key input 3 as the input of the 10th place, and if an input enters from the ten key input 3 again, it will perform double figure channel selection operation as an input of the 1st place. **0020**In this example, although the existence of the receiving station of 100 or more channels is judged, it does not restrict to this, and the existence of the receiving station of 200 or more channels is judged, for example, and the input change of the 100th place and the 10th place is performed in the ten key input of 1 and 2.

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Means for Solving the Problem In order to solve an aforementioned problem, in a discrimination circuit, the 100th place of an automatic of this invention comprises the following: An auto programing operation part which registers ADD ch.

A 100 place judgment part which judges existence of a receiving station of 100 or more channels from information on said auto programing operation part.

That a ten key input entered and said channel selection judgment part which tunes in by incorporating information on a judgment part the 100th place.

# **Brief Description of the Drawings**

Drawing 1The block lineblock diagram of the channel selection circuit in one example of this invention.

Drawing 2The block lineblock diagram of the conventional channel selection circuit. **Description of Notations** 

- 1 Auto programing operation part
- 2 100 place judgment part
- 3 Ten key input
- 4 Channel selection judgment part
- 5 Ten key input
- 6 Channel selection judgment part

#### Drawing 1

PatentOrder MT Page 6 of 6

For drawings please refer to the original document.
Drawing 2
For drawings please refer to the original document.
For drawings please refer to the original document.